

**KOLKATA METRO RAIL CORPORATION LIMITED  
EAST WEST METRO PROJECT**

**CONTRACT CPD**

**DESIGN, MANUFACTURE, SUPPLY, CONSTRUCTION AND  
COMMISSIONING OF CENTRAL PARK DEPOT**

**TENDER DOCUMENTS**

**VOLUME 5**

**PRICING DOCUMENT**

**KOLKATA METRO RAIL CORPORATION LIMITED  
HRBC Bhawan,  
Munshi Premchand Sarani,  
4th Floor, Kolkata 700 021  
India**

**KOLKATA METRO RAIL CORPORATION LIMITED  
EAST WEST METRO PROJECT**

**CONTRACT CPD**

**DESIGN, MANUFACTURE, SUPPLY, CONSTRUCTION AND  
COMMISSIONING OF CENTRAL PARK DEPOT**

**VOLUME 5**

**PRICING DOCUMENT**

**Contents**

<b>Item</b>	<b>Page</b>
Preamble	1
Summary of Schedules A, B & C	3
Schedule A : Lump Sum Works (Schedule A1) & Architectural Finishes (Schedule A2)	4
Schedule A2: Architectural Finishes	6
Annexure to Schedule A1 : Schedule of On Account Payment of Lump Sum Amount	14
Schedule B : Item Rate BoQ : Building, Sanitary, Plumbing & Roadworks	19
Annexure to Schedule C – Sub-head C1 : Civil Utilities	20
Annexure to Schedule C – Sub-head C2 : Electrical Utilities	28

## **CONTRACT CPD**

### **DESIGN, MANUFACTURE, SUPPLY, CONSTRUCTION AND COMMISSIONING OF CENTRAL PARK DEPOT**

#### **PRICING DOCUMENT**

1. The Pricing Document shall be read in conjunction with the Notice of Invitation to Tenderers, Instruction to Tenderers and all the tender documents/drawings as listed in clause B1.1 of the Instructions to Tenderers. Schedule A of the Pricing Document comprises the Lump Sum amount for the works (Schedule A1) set out in the Scope of Works plus the Provisional Sum for Architectural Finishes (Schedule A2) which is the sum of Schedule AF1+ Schedule AF2. The detailed Scope of Works is given in Volume 2 (Employer's Requirements) and Volume 3 (Outline Technical Specifications). The Tender Sum comprises Schedule A plus the Provisional Sums for Schedules B and C.
2. Payment of the Lump Sum amount in Schedule A1 will be made as per the Schedule for "On Account Payment" enclosed as the Annexure to Schedule A1.

The Provisional Sum in Schedule A2 (AF1 and AF2) is for the architectural finishes for Administration Building, Security Guard Building, DCOS cum Property Development, Canteen and Drivers' Booking Office. The Tenderer shall quote a percentage above /below against the basic amount of the Provisional Sum given in Schedule AF1 as per the CPWD Schedule of Rates 2007 and for the items listed in Schedule AF2 for which CPWD rates do not exist and for which the Tenderer is required to provide the proposed rates. Payment against this head will be made on the basis of quantities actually executed, measured and certified.

The Provisional Sum in Schedule B under WB PWD Schedules of Rates is for works outside the boundary of the proposed depot and any works not covered in Schedules A and C. Diversion of utilities must be approved by the service owning agency and the Engineer. Payment against this head will be made on the basis of quantities actually executed, measured and certified. Schedule B applies to WB PWD Schedule of Rates 2007 for Building, Sanitary and Plumbing works and WB PWD Schedule of Rates 2008/2009 for Road works with all Corrigendum up to the date of tender opening. The Tenderer has to quote the percentage above/below the rates against schedule B.

3. Schedule C comprises of percentage rate Bill of Quantities for Civil and Electrical works under the WB PWD Schedule of Rates. The Tenderer has to quote the percentage above or below the basic amount of the provisional sum given in Schedule C. The percentage quoted by the Tenderers will be applied to the rates given for payment purposes. Payment against this head will

be made on the basis of quantities executed, measured and certified. Under this schedule the contractor has to undertake all works which are not covered in Schedule A or B as per site requirements and direction of the Engineer.

4. a) The amounts quoted for Schedules A, B & C of the Pricing Document are for finished items of work complete in all respects, inclusive of all false-work and formwork (shuttering) and will be for the purposes of arriving at the most competitive bidder. The amounts will be deemed to include all plant, labour, supervision, materials, transport, temporary works, traffic diversions, erection, maintenance, contractor's profit and establishment/ overheads, together with preparation of design and drawings, all general risks, insurance liabilities, compliance of labour laws and taxes/duties etc. as per statutory obligations set out or implied in the Contract.
- b) If the Tenderer fails to quote rates or percentages against any Schedule, the Tender will be treated as incomplete and non-responsive and shall be rejected.
- c) General directions and descriptions of work and materials are not necessarily repeated, nor summarized in the Bill of Quantities/Pricing Document. Reference to the relevant sections of the contract documentation shall be made before entering prices against the Bill of Quantities/Pricing Document.
- d) Errors will be corrected by the Employer for any arithmetic mistakes in computation or summation as indicated in the Instruction to Tenderers.
- e) The Tenderer shall give his price offer in Indian Rupees for Schedules A, B and C. All the amounts should be given both in figures and words.
- f) All columns in the Pricing Document shall be completed in indelible ink or type written and the total Tender Sum provided. The person authorized to sign on behalf of the Tenderer shall sign in full with company seal and date at the bottom of all pages of Pricing Document.
- g) Payments to the Contractor will generally be made on a monthly basis, unless otherwise stipulated. This will be for actual work done for the items covered in Schedules A2, B & C and on pro rata basis of percentage work actually completed in different items of Schedule A1 of the Pricing Document.

-----

**KOLKATA METRO RAIL CORPORATION LIMITED  
EAST WEST METRO PROJECT**

**CONTRACT CPD**

**DESIGN, MANUFACTURE, SUPPLY, CONSTRUCTION AND COMMISSIONING OF CENTRAL  
PARK DEPOT**

**SUMMARY OF SCHEDULES A, B & C**

<b>Schedules</b>	<b>Total Amount in Rupees</b>
Schedule A	
Schedule B	
Schedule C	
<b>Total A+B+C (In figures)</b>	
<b>Total A+B+C (In words)</b>	

Note: 1. Schedule A shall be the Lump Sum amount of Schedule A1 plus the amount quoted for Architectural Finishes (Schedule A2)

2. The Tender Sum comprises the amount of Schedule A plus the Provisional Sums for Schedules B and C

**Authorized signatory with Company Seal**

**KOLKATA METRO RAIL CORPORATION LIMITED  
EAST WEST METRO PROJECT**

**CONTRACT CPD**

**DESIGN, MANUFACTURE, SUPPLY, CONSTRUCTION AND COMMISSIONING OF CENTRAL  
PARK DEPOT**

**SCHEDULE A**

**Price of Lump Sum portion of the Work**

The Tenderer must quote his offer in Indian Rupees. The offer should be in the following proforma:

**Schedule A1 – Lump Sum Portion**

	<b>Total amount in Indian Rupees</b>
<b>In figures</b>	
<b>In words</b>	

**Schedule A2 – Provisional Sum for Architectural Finishes**

Rates for Work to be executed for the items given in the Schedule. The Tenderer has to quote a single percentage for the following items.

<b>Schedule</b>	<b>Description</b>	<b>Provisional Sum in Indian Rupees</b>	<b>Percentage above / below on the Basic Lump Sum Price</b>	<b>Total amount in Indian Rupees</b>
AF1	Architectural Finishes Included in CPWD SOR-2007	15,00,00,000		
AF2	Architectural Finishes Items not included in CPWD SOR-2007	2,50,00,000		
<b>Schedule A2 total amount</b> (Schedule AF1 amount +AF2 amount)				

**Total Cost Schedule A2**

**In figures:** .....

**In words:** .....

**TOTAL OF SCHEDULE A = Schedule A1+Schedule A2**

	<b>TOTAL OF SCHEDULE A Total amount in Indian Rupees</b>
<b>In figures</b>	
<b>In words</b>	

**Notes:**

- (1) Interim 'On Account' stage payments of the Lump Sum amount shall be made as per Annexure 1 to Schedule A1. Annexure 1 gives the percentages payable on the basis of the Lump Sum amount quoted above in Schedule A1.

**Authorized signatory with Company Seal**

<b>SCHEDULE AF1</b>			
<b>ARCHITECTURAL FINISHES</b>			
(CPWD Schedule 2007 Rates applicable)			
<b>FLOOR FINISH</b>	<b>CPWD Clause</b>	<b>units</b>	<b>CPWD Rate in rupees-2007</b>
Plain Cement Concrete Flooring	11.3	Sqm	192.95
	11.4	Sqm	286.55
	11.5	Sqm	318.65
	11.6	Sqm	168.5
	11.7	cum	3,695.95
	11.8	Sqm	13.15
Acid or Alkali Resistant Floor Finish	11.21.1		
	11.21.1.1	Sqm	873
	11.21.2.1	Sqm	909.15
Natural Granite	11.23.4	Sqm	892.15
	11.23.5	Sqm	1,112.55
Terrazzo	11.9.1	Sqm	305.75
	11.9.2	Sqm	337.8
	11.9.3	Sqm	307.6
	11.9.4	Sqm	317.1
	11.9.5	Sqm	313.35
	11.9.6	Sqm	291.05
	11.10.1	Sqm	303.6
	11.10.2	Sqm	349.25
	11.10.3	Sqm	322.45
	11.10.4	Sqm	335.85
	11.10.5	Sqm	311.2
	11.10.6	Sqm	297.85

	11.11.1	Sqm	336.55
	11.11.2	Sqm	400.6
	11.11.3	Sqm	363
	11.11.4	Sqm	357.1
	11.11.5	Sqm	351.7
	11.11.6	Sqm	308.15
	11.12.1	Sqm	360.9
	11.12.2	Sqm	392.95
	11.12.3	Sqm	374.15
	11.12.4	Sqm	372.25
	11.12.5	Sqm	368.5
	11.12.6	Sqm	346.2
	11.13.1	Meter	17.6
Glazed Ceramic Tile	11.36	Sqm	556.6
	11.37	Sqm	598.65
	11.38	Sqm	630.8
	11.39	Sqm	759.9
	11.4	Sqm	800.4
Vetrified Tile (various shades and texture)	11.41.1	Sqm	966.35
	11.41.2	Sqm	1,031.85
	11.41.3	Sqm	1,478.30
	11.41.4	Sqm	1,733.05
	11.43	Sqm	224.7
Kota Stone Flooring	11.26	Sqm	694.4
	11.27	Sqm	676.75

<b>WALL FINISH</b>	<b>CPWD Clause</b>	<b>units</b>	<b>CPWD Rate in rupees</b>
Cement Plaster with a floating coat of neat cement	13.1.1	Sqm	77.55
	13.2.1	Sqm	90.35
	13.3.1	Sqm	110.45
	13.4.1	Sqm	82.55
	13.5.1	Sqm	96.35
	13.6.1	Sqm	118.25
	13.7.1	Sqm	107.8
	13.8.1	Sqm	
Paint Finish	820	litre	70
	821	litre	73
	826	litre	89
	827	litre	93
	828	litre	52
	830	litre	115
	833	litre	115
	834	litre	120
	851	litre	36
	4202	litre	58
	8507	litre	183
	7240	litre	318
	13.60.1	litre	40.05
Cermaic tile	7800	Sqm	268
	7801	Sqm	320
	7802	Sqm	347

<b>CEILING FINISH</b>	<b>CPWD Clause</b>	<b>units</b>	<b>CPWD Rate in rupees</b>
Insulating board with paint finish	12.24.1	Sqm	
	12.24.1.1	Sqm	311.4
	12.24.2.1	Sqm	393.15
	12.24.3.1	Sqm	353.55
particle board finish	12.25.1	Sqm	417.1
Multipurpose Cement board	12.26.1	Sqm	317.45
Acrylic Plastic Sheet	12.3	Sqm	336.85
Gypsum Board	12.32.1	Sqm	402.4
	12.32.2	Sqm	452.35
	12.32	Sqm	104.7
	12.33	Sqm	38.9
<b>DOOR, WINDOW FINISHING</b>	<b>CPWD Clause</b>	<b>units</b>	<b>CPWD Rate in rupees</b>
Flush hollow metal doors and frames (alkalyd enamel finish)	7157	10cudm	540
Flush door	713	Sqm	1,100.00
	714	Sqm	1,050.00
	715	Sqm	1,000.00
	717	Sqm	632
	718	Sqm	610
	719	Sqm	600
Aluminium Hollow Section Door, Window, Ventilator & Partition	21.1.1.1	kg	290.45
	21.1.1.2	kg	306.3
	21.1.1.3	kg	312.4
	21.1.2.1	kg	310.45
	21.1.2.2	kg	326.6
	21.1.2.3	kg	332.85

	21.2.1	Sqm	776.05
	21.2.2	Sqm	812.6
	21.3.1	Sqm	554.95
	21.3.2	Sqm	673.55
	21.3.3	Sqm	556
	21.4.1	each	1,732.65
	21.4.2	each	1,907.70
	21.10.	Sqm	2,808.90
<b>GLAZING FINISH</b>	<b>CPWD Clause</b>	<b>units</b>	<b>CPWD Rate in rupees</b>
Float Glass	2406	Sqm	248
	2407	Sqm	340

<b>SCHEDULE AF2</b> <b>ARCHITECTURAL FINISHES</b> (CPWD Schedule 2007 Rates not applicable)			
FLOOR FINISH	units	Description	Tenderer to enter rates in rupees
Recycled Content Architectural Floor Tile (various shades and texture)	Sqm	8mm thick or as specified by the manufacturers with 1:4 cement mortar joints with grey or white cement as approved by the EIC	
Red Granite(specs)	Sqm	Granite stone flooring with 18mm thick granite stone (sample of granite shall be approved by Engineer-in-charge) over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry including rubbing and polishing complete with	
Manufactured Granite	Sqm	8mm thick manufactured granite stone (sample shall be approved by Engineer-in-charge) over 12 mm (average) thick base of cement mortar 1:4 (1 cement: 4 coarse sand) laid and jointed with grey cement.	
Quarry Tile	Sqm	18mm thick (sample shall be approved by Engineer-in-charge) over 20 mm (average) thick base of cement mortar 1:4 (1 cement: 4 coarse sand)	

Paver Brick	Sqm	CC Paver Brick flooring, average 65mm thick with 1:4 cement mortar	
Unglazed Ceramic Tile	Sqm	Average 6mm or as specified by the manufacturer of 1st quality conforming to IS : 15622 of approved make (colour to be approved by the EIC) on 20mm thick bed of Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigments etc.	
Vinyl Tiles (various shades and texture)	Sqm	Thickness: 0.45 mm, 0.55 mm, 1.3 mm 0.55, Anti-Skid, Stud Flooring. Shall be approved by the EIC, shall have a fire retardant properties.	
<b>WALL FINISH</b>	<b>units</b>		<b>Tenderer to enter rates in rupees</b>
Concrete with sealers	gal	12mm thick wall finish with approved colour and admixture sealers	
Rusticated joints	Sqm	Rusticated joint of specified thickness and pointing style, average ½ the thickness of the tile size	
Veneers Finish	Sqm	3.5 mm thick or as specified by the manufacturers, fixing as per manufacturers detailing of installation to shall be approved by the EIC, shall have required fire rating and C value	
Structural glaze faced concrete masonry units	Sqm	1/2/3 side glazed masonry unit 110mmX230mmX65mm or as specified by the manufacturer	
Crystallized glass panels	Sqm	Thickness 12mm to 25mm Standard Specifications for cut-to-size: 300x600, 600x600, 800x800mm, colors: White, white with dots, and beige	
Rough or textured concrete	Sqm	Rough textures CMU various sizes and thickness as approved by the EIC, 1:4 cement mortar jointing.	
Acoustic panels	Sqm	8mm/10mm/12mm acoustic semi/fully perforated panels, 30X30, 45X45, 60X60, 90X90	
Quarry tile	Sqm	12 mm thick (sample shall be approved by Engineer-in-charge) over 18 mm (average) thick base of cement mortar 1:4 (1 cement: 4 coarse sand)	
Rubber/ Vinyl	Sqm	Thickness: 0.45 mm, 0.55 mm, 1.3 mm 0.55, Anti-Skid, Stud Flooring. Shall be approved by the EIC, shall have a fire retardant properties.	
Acid resistant applied coating	Sqm	1/2/3 coats of Acid resistant coating over wall finish at specified locations as per the technical specification.	
<b>CEILING FINISH</b>	<b>units</b>		<b>Tenderer to enter rates in rupees</b>
Smooth Concrete finish with whitewash	Sqm	Cleaning/ smoothing with POP/ putty polish and white wash finish 1/2/3/coats as approved by the EIC	
Acoustic materials (vermiculite plaster etc)	Sqm	8mm/10mm/12mm acoustic semi/fully perforated ceiling boards on aluminum suspended	

		frame 60X60, 90X90	
Non - corrosive metal panels with coating or natural brushed finish	Sqm	18/20 gauge non corrosive perforated ceiling panels on metal suspended frames of approved colour and texture	
<b>DOOR, WINDOW FINISHING</b>	<b>units</b>		<b>Tenderer to enter rates in rupees</b>
Wire glass at doors with vision panels	Sqm	4mm thick wire glass door with vision pane on aluminum frame of standard size	
Laminated safety glass at elevator	Sqm	12mm thick Laminated safety glass at elevator landings of approved design and pattern fixed as per manufacturer's detail.	
SS overhead rolling grilles	Sqm	Stainless steel overhead rolling grilles of approved design and pattern made of at least 3mm sections	
SS service gates	Sqm	Stainless steel hollow steel gate with vision pane, 40mm thick of approved design and pattern fixing as per manufacturer's detail	
SS Doors	Sqm	Stainless steel hollow steel gate 40mm thick of approved design and patten, fixing as per manufacturer's detail	
<b>GLAZING FINISH</b>	<b>units</b>		<b>Tenderer to enter rates in rupees</b>
Extra Clear Patterned Glass (Photo-Voltaic Applications)	Sqm	Extra clear flat glass 10mm/12mm with photovoltaic applications, standards supplier and make	
Advanced solar control and thermal insulation glass	Sqm	10mm/12mm thermal insulation glass with <b>solar control</b> and thermal insulation properties standards supplier and make	
Self cleaning glass	Sqm	10mm/12mm low-maintenance <b>exterior glass</b> that stays clean by itself, standards supplier and make	
Double glazes flat glass	Sqm	6mm double glazed clear flat glass, with a cavity gap for insulation, fixing as per the manufacturers detail, standards supplier and make	
Recycled Glass	Sqm	4mm/6mm/10mm/12mm interior and exterior glass finish with at least 25% of recycled glass content or energy saving rating by the manufacturer	
Frosted Flat glass	Sqm	6mm thick frosted glass panels in the interior finish, fixing as per manufacturer's detail	
<b>SANITARY FITTINGS</b>	<b>units</b>		<b>Tenderer to enter rates in rupees</b>
Flush valve type toilet	Nos	Water efficient flush valve type toilet fixtures of standard make and approved quality.	
Wall mounted toilet paper holder	Nos	Stainless steel wall mounted toilet paper holder of standard supplier and approved quality	
Wall mounted urinal w/ flush valve	Nos	Wall mounted ceramic urinal fitting of approved quality and standard make.	

Recessed automatic flush valve censor	Nos	Water efficient automatic flush system of approved quality and standard make	
Single faucet	Nos	approved quality and standard make	
Under counter type lavatory	Nos	approved quality and standard make	
Towel dispenser	Nos	Stainless steel towel dispenser of standard supplier and approved quality	
Trash bin	Nos	Stainless steel thrash bin of standard supplier and approved quality	
Frameless mirror	Nos	Wall mounted frameless mirror of 6mm thickness of approved quality	
Wash basin	Nos	approved quality and standard make	
Grab bars	Nos	Stainless steel grab bars wall fixing as per the manufacturers detail	
Water heaters	Nos	Standalone solar water heater of minimum 40 lts capacity in the shower areas	
Shower Fixture	Nos	Stainless steel easy cleaning bath room shower fixture standard quality and make	
Liquid soap dispenser	Nos	Wall mounted stainless steel liquid dispenser approved quality and make	
Floor trap	Nos	Stainless steel floor trap approved quality and standard make	
Electric hand dryer	Nos	approved quality and standard make	

**KMRC**

**East West Metro Project  
Contract Package CPD  
DESIGN AND CONSTRUCTION OF CENTRAL PARK  
DEPOT**

Annexure to Schedule A1  
Schedule of On Account Payment

<b>Item No.</b>	<b>Payment Items</b>	<b>Percentage Payable on Lump Sum Quotation</b>
<b>I</b>	<b><u>Final Design and General</u></b>	
D-I.01	Detail Schedule for Completion of the key milestones including conceptual, preliminary and final design submission milestones (with calculations)	1.00%
D-I.02	Soil investigation, construction of contractor's site office. Submission and approval of civil and site work design including clearances, permits and approvals from various authorities. (Note 1)	0.20%
D-I.03	Submission and approval of Preliminary and Final Design for workshop and stabling yard including clearances, permits and approvals from various authorities. (Note 1)	1.50%
D-I.04	Submission and approval of Preliminary and Final Design for balance of Depot buildings including clearances, permits and approvals from various authorities. (Note 1)	1.00%
D-I.05	Submission of quarterly audit reports of safety, quality and environment and public health and Action Taken on non-compliance of non-conformance report and its closure during previous month. (Note 1)	0.15%

Note 1: For items D-I.02 to D-I.05, the contractor shall propose schedule of stage payment subject to approval by the Engineer. Payment will be made only when items in approved schedule of stage payment are 100% complete.

<b>II</b>	<b><u>Site Work</u></b>	
C-II.01	Site grading/drainage/sedimentation & detention basin 25%	0.75%
C-II.02	Site grading/drainage/sedimentation & detention basin 50%	0.20%
C-II.03	Site grading/drainage/sedimentation & detention basin 75%	0.20%
C-II.04	Site grading/drainage/sedimentation & detention basin 100%	0.20%
C-II.05	Site Electric including incoming service and site lighting	0.20%

C-II.06	Roadway, parking lot, curb & site work finishes Complete	0.20%
C-II.07	Perimeter Protection "Green" wall Complete	0.20%
C-II.08	Landscaping Complete	0.20%
C-II.09	P-Way Yard	0.30%
C-II.10	Ballasted trackwork, special track work, switches, bumpers, etc & 3rd Rail	4.00%
C-II.11	<b>Site Ready in all respects to Receive Rolling Stock (Key Date)</b>	0.50%
<b>III</b>	<b><u>Workshop</u></b>	
C-III.01	Excav, F/R/P Col/Wall Ftgs & Fdns & Back Fill 25%	0.40%
C-III.02	Excav, F/R/P Col/Wall Ftgs & Fdns & Back Fill 50%	0.40%
C-III.03	Excav, F/R/P Col/Wall Ftgs & Fdns & Back Fill 75%	0.40%
C-III.04	Excav, F/R/P Col/Wall Ftgs & Fdns & Back Fill 100%	0.40%
C-III.05	RCC Trenches 25%	0.30%
C-III.06	RCC Trenches 50%	0.30%
C-III.07	RCC Trenches 75%	0.30%
C-III.08	RCC Trenches 100%	0.30%
C-III.09	Slab on Grade 25%	0.40%
C-III.10	Slab on Grade 50%	0.40%
C-III.11	Slab on Grade 75%	0.40%
C-III.12	Slab on Grade 100%	0.40%
C-III.13	Structural Steel Cols & Bms 25%	0.65%
C-III.14	Structural Steel Cols & Bms 50%	0.65%
C-III.15	Structural Steel Cols & Bms 75%	0.65%
C-III.16	Structural Steel Cols & Bms 100%	0.65%
C-III.17	Structural Steel Roof Trusses, & Decking 25%	0.65%
C-III.18	Structural Steel Roof Trusses, & Decking 50%	0.65%
C-III.19	Structural Steel Roof Trusses, & Decking 75%	0.65%
C-III.20	Structural Steel Roof Trusses, & Decking 100%	0.65%
C-III.21	Standing seam metal roof & roofing Finishes 50%	0.25%
C-III.22	Standing seam metal roof & roofing Finishes 100%	0.25%
C-III.23	Metal Siding 50%	0.15%
C-III.24	Metal Siding 100%	0.15%
C-III.25	Perimeter Masonry Wall 50%	0.10%
C-III.26	Perimeter Masonry Wall 100%	0.10%
C-III.27	Interior Partitions Complete	0.10%
C-III.28	Exterior Doors including roll-up doors, fixed & operable windows complete	1.50%
C-III.29	Architectural Finishes (incl. toilets, offices, floor/Wall/Ceil Finishes) other than Schedule AF Architectural Finishes	2.80%
C-III.30	Electrical Fixtures	0.15%
C-III.31	U/G Plumbing 50%	1.00%
C-III.32	U/G Plumbing 100%	1.00%
C-III.33	Electrical R/I 50%	1.00%
C-III.34	Electrical R/I 100%	1.00%
C-III.35	Plumbing and fire fighting R/I 50%	1.25%
C-III.36	Plumbing and fire fighting R/I 100%	1.25%

C-III.37	Mech. Air Cooling & Ventilation Sys R/I 50%	1.00%
C-III.38	Mech. Air Cooling & Ventilation Sys R/I 100%	1.00%
C-III.39	Tools, Plant and Equipment Installation, testing and commissioning - 25%	3.75%
C-III.40	Tools, Plant and Equipment Installation, testing and commissioning - 50%	3.75%
C-III.41	Tools, Plant and Equipment Installation, testing and commissioning - 75%	3.75%
C-III.42	Tools, Plant and Equipment Installation, testing and commissioning - 100%	3.75%
C-III.43	Plumbing & Fire Fighting System testing and commissioning	2.25%
C-III.44	Electrical System testing and commissioning	2.90%
C-III.45	Mech. Systems testing and commissioning	2.80%
C-III.46	KMRC Personnel training	3.00%
C-III.47	<b>Workshop Ready in all respects to service Rolling Stock (Key Date)</b>	0.50%
C-III.48		
<b>IV</b>	<b><u>Stabling</u></b>	
C-IV.01	Excav, F/R/P Col/Wall Ftgs & Fdns & Back Fill 25%	0.15%
C-IV.02	Excav, F/R/P Col/Wall Ftgs & Fdns & Back Fill 50%	0.15%
C-IV.03	Excav, F/R/P Col/Wall Ftgs & Fdns & Back Fill 75%	0.15%
C-IV.04	Excav, F/R/P Col/Wall Ftgs & Fdns & Back Fill 100%	0.15%
C-IV.05	RCC Trenches 25%	0.10%
C-IV.06	RCC Trenches 50%	0.10%
C-IV.07	RCC Trenches 75%	0.10%
C-IV.08	RCC Trenches 100%	0.10%
C-IV.09	Slab on Grade 25%	0.15%
C-IV.10	Slab on Grade 50%	0.15%
C-IV.11	Slab on Grade 75%	0.15%
C-IV.12	Slab on Grade 100%	0.15%
C-IV.13	Structural Steel Cols & Bms 25%	0.20%
C-IV.14	Structural Steel Cols & Bms 50%	0.20%
C-IV.15	Structural Steel Cols & Bms 75%	0.20%
C-IV.16	Structural Steel Cols & Bms 100%	0.20%
C-IV.17	Structural Steel Roof Trusses, & Decking 25%	0.25%
C-IV.18	Structural Steel Roof Trusses, & Decking 50%	0.25%
C-IV.19	Structural Steel Roof Trusses, & Decking 75%	0.25%
C-IV.20	Structural Steel Roof Trusses, & Decking 100%	0.25%
C-IV.21	Standing seam metal roof & roofing Finishes 50%	0.10%
C-IV.22	Standing seam metal roof & roofing Finishes 100%	0.10%
C-IV.23	Metal Siding 100%	0.10%
C-IV.24	Perimeter Masonry Wall 100%	0.10%
C-IV.25	Interior Partitions Complete	0.05%
C-IV.26	Exterior Doors including roll-up doors, fixed & operable windows complete	0.05%
C-IV.27	Architectural Finishes (incl. toilets, offices, floor/Wall/Ceil Finishes) other than Schedule AF Architectural Finishes	0.30%

C-IV.28	Electrical Fixtures	0.10%
C-IV.29	U/G Plumbing 50%	0.15%
C-IV.30	U/G Plumbing 100%	0.15%
C-IV.31	Electrical R/I 50%	0.15%
C-IV.32	Electrical R/I 100%	0.15%
C-IV.33	Plumbing and fire fighting R/I 50%	0.20%
C-IV.34	Plumbing and fire fighting R/I 100%	0.20%
C-IV.35	Mech. Air Cooling & Ventilation Sys R/I 50%	0.15%
C-IV.36	Mech. Air Cooling & Ventilation Sys R/I 100%	0.15%
C-IV.37	Tools, Plant and Equipment Installation, testing and commissioning - 25%	1.70%
C-IV.38	Tools, Plant and Equipment Installation, testing and commissioning - 50%	1.70%
C-IV.39	Tools, Plant and Equipment Installation, testing and commissioning - 75%	1.70%
C-IV.40	Tools, Plant and Equipment Installation, testing and commissioning - 100%	1.70%
C-IV.41	Plumbing & Fire Fighting System testing and commissioning	0.30%
C-IV.42	Electrical System testing and commissioning	0.45%
C-IV.43	Mech. System testing and commissioning	0.35%
C-IV.44	<b>Stabling Ready in all respects to Receive Rolling Stock (Key Date)</b>	0.50%
<b>V</b>	<b><u>ETU Maintenance</u></b>	
C-V.01	Excav, F/R/P Col/Wall Ftgs & Fdns & Back Fill	0.30%
C-V.02	Slab on Grade	0.20%
C-V.03	Complete Superstructure including Roofing, windows & Doors	0.50%
C-V.04	Architectural Finishes (incl. toilets, offices, floor/Wall/Ceil Finishes) other than Schedule AF Architectural Finishes	0.25%
C-V.05	Electrical Fixtures	0.10%
C-V.06	Plumbing and fire fighting R/I 100%	0.25%
C-V.07	Electrical R/I 100%	0.50%
C-V.08	Mech. Air Cooling & Ventilation Sys R/I 100%	0.25%
C-V.09	Tools, Plant and Equipment Installation, testing and commissioning - 100%	3.00%
C-V.10	Plumbing & Fire Fighting System testing and commissioning	0.50%
C-V.11	Electrical System testing and commissioning	1.90%
C-V.12	Mech. System testing and commissioning	1.35%
C-V.13	KMRC Personnel training	0.75%
C-V.14	<b>ETU Ready in all respects to service Rolling Stock (Key Date)</b>	0.50%
C-V.15		
<b>VI</b>	<b><u>DCOS Store (Property Development Bldg) (B+5F)</u></b>	
C-VI.01	Excav, F/R/P Col/Wall Ftgs & Fdns & Back Fill	0.25%
C-VI.02	Slab on Grade	0.20%
C-VI.03	Complete Superstructure including Roofing, windows & Doors	1.00%
C-VI.04	Architectural Finishes (incl. toilets, offices, floor/Wall/Ceil Finishes) other than Schedule AF Architectural Finishes	0.30%
C-VI.05	Electrical Fixtures	0.05%

C-VI.06	Plumbing and fire fighting R/I 100%	0.30%
C-VI.07	Electrical R/I 100%	0.30%
C-VI.08	Central AC R/I 100%	0.35%
C-VI.09	Equipment Installation, testing and commissioning - 100%	0.50%
C-VI.10	Plumbing & Fire Fighting System testing and commissioning	0.50%
C-VI.11	Electrical System testing and commissioning	0.50%
C-VI.12	AC System testing and commissioning	0.50%
C-VI.13	<b>DCOS Store &amp; PD Ready in all respects to support CP Depot (Key Date)</b>	0.50%
C-VI.14		
C-VI.15		
<b>VII</b>	<b><u>Admin/OCC/DCC Building (6F)</u></b>	
C-VII.01	Excav, F/R/P Col/Wall Ftgs & Fdns & Back Fill	0.30%
C-VII.02	Slab on Grade	0.20%
C-VII.03	Complete Superstructure including Roofing, windows & Doors	1.00%
C-VII.04	Architectural Finishes (incl. toilets, offices, floor/Wall/Ceil Finishes) other than Schedule AF Architectural Finishes	1.50%
C-VII.05	Electrical Fixtures	0.05%
C-VII.06	Plumbing and fire fighting R/I 100%	0.50%
C-VII.07	Electrical R/I 100%	0.75%
C-VII.08	Central AC R/I 100%	0.55%
C-VII.09	Equipment Installation, testing and commissioning - 100%	0.75%
C-VII.10	Plumbing & Fire Fighting System testing and commissioning	0.50%
C-VII.11	Electrical System testing and commissioning	1.00%
C-VII.12	AC System testing and commissioning	1.00%
C-VII.13	<b>OCC/DCC ready in all respects for RR systems testing (Key Date)</b>	0.50%
C-VII.14		
C-VII.15		

<b>VIII</b>	<b><u>Other Facilities</u></b>	
C-VIII.01	Security Building Complete	0.05%
C-VIII.02	Chemical Store Complete	0.03%
C-VIII.03	Canteen Complete	0.15%
C-VIII.04	U/G Fire Fighting Water Tank Complete	0.05%
C-VIII.05	Pump Room & OHT Complete (including U/G holding tank)	0.05%
C-VIII.06	Waste Storage Complete	0.02%
C-VIII.07	Driver's Booking Office Complete	0.05%
C-VIII.08	Effluent Treatment Plant Complete, commissioned and functional	0.10%
C-VIII.09	Perimeter Security Wall ("Green" Wall)	0.40%
C-VIII.10		
C-VIII.11		

**KOLKATA METRO RAIL CORPORATION LIMITED**

**EAST WEST METRO PROJECT**

**CONTRACT CPD**

**DESIGN, MANUFACTURE, SUPPLY, CONSTRUCTION AND COMMISSIONING OF CENTRAL PARK DEPOT**

**SCHEDULE B**

The Tenderer has to quote a single percentage above/below the following items

<b>Description</b>	<b>Unit</b>	<b>Provisional Sum in Indian Rupees</b>	<b>Percentage above/below</b>	<b>Amount</b>
<b>B1.</b> All works under WB PWDSR 2007 for Building, Sanitary and Plumbing works with all addenda and corrigenda up to the opening of tender.	LS	Rs.1,00,00,000		
<b>B2.</b> All works under WB PWD Schedule of Rates of 2008-2009 for Road works with all addenda and corrigenda up to the opening of tender.	LS	Rs.1,00,00,000		
<b>B</b>	B1+B2			

**Total Cost Schedule B**

**In figures:** .....

**In words:** .....

**Authorized signatory with Company Seal**

**KOLKATA METRO RAIL CORPORATION LIMITED  
EAST WEST METRO PROJECT**

**CONTRACT CPD**

**DESIGN, MANUFACTURE, SUPPLY, CONSTRUCTION AND COMMISSIONING OF CENTRAL  
PARK DEPOT**

**SCHEDULE C**

Rates for Work to be executed for the items given in the Schedule. The Tenderer has to quote a single percentage for the following items.

<b>Description</b>	<b>Provision of Basic Lump Sum Amount</b>	<b>Percentage above / below on the Basic Lump Sum Price</b>	<b>Total Amount</b>
The work shall be executed under the Schedule of items given in Annexure to the Schedule C. The items mainly include the diversion of uncharted utilities (Civil, Electrical and Telecom) as required.	Rs.50,00,000 (Rs. Fifty lakhs only)		

**Total Cost Schedule C**

**In figures:** .....

**In words:** .....

**Authorized signatory with Company Seal**

**ANNEXURE TO SCHEDULE-C  
Sub-head: C1 – Civil Utilities**

<b>Item No.</b>	<b>Description of work</b>	<b>Unit</b>	<b>Rate</b>
<b>ITEMS FOR CIVIL UTILITIES</b>			
1	Taking out and transportation of C.I/M.S/P.S.C/H.S. pipes etc including dejointing and transportation upto all lifts and a lead of 5km.		
A)	For pipe line		
a)	upto 300mm dia pipe line	metre	219
b)	upto 400-600 mm dia pipe line	metre	400
c	upto 750mm dia pipe line	metre	625
d)	upto 900mm dia pipe line	metre	900
B)	for interconnection point/Y-Tee/Valve		
a)	upto 300mm dia	each	8250
b)	upto 400-600 mm dia	each	21200
2	Supply and laying of RCC NP3 (MODIFIED) Spigot and Socket pipe with rubber ring, bailing out/dewatering (by pump or otherwise) water in trenches, lowering the same into the trench,aligning and jointing the pipe on crushed stone aggregate bedding over brick flat soling to prescribed gradient, depth and alignment, fixing spigot and sockets with rubber ring, making connection to old or new manholes (including dismantling and making good the man hole wall) and checking the as-laid pipe with joint etc, as directed by the engineer (the rate shall include all cost of material and labour for pipe, bedding stone aggregate packing, dewatering, boning rod, site rails, levelling instrument as required for the above mentioned work.		
a)	150 mm diameter	metre	1500
b)	250mm dia pipe	metre	2693
c)	300mm dia pipe	metre	4172
d)	400mm dia pipe	metre	4880
e)	450mm dia pipe	metre	5687
f)	600mm dia pipe	metre	8082
g)	900mm dia pipe	metre	9102

<b>Item No.</b>	<b>Description of work</b>	<b>Unit</b>	<b>Rate</b>
h)	1000mm dia pipe	metre	10003
i)	1200mm dia pipe	metre	12923
j)	1400mm dia pipe	metre	17471
k)	1600mm dia pipe	metre	20587
3	Plugging of water main with baloon of adequate size by inflating with air compressor including transportation of air compressor at site		
a)	150 mm dia	job	1500
b)	200 mm dia	job	2650
c)	300 mm dia	job	6000
d)	400 mm dia	job	10467
e)	450 mm dia	job	12250
f)	500 mm dia	job	14000
g)	600 mm dia	job	15700
h)	750 mm dia	job	24500
i)	900 mm dia	job	35300
4	Plugging the total sewerage from the existing sewer line so as to reduce the drainage of sewer line to minimum in wet and foul condition by placing gunny bags filled up with earth and stacked properly including supplying and laying the filled up gunny bags up to full length and required height as directed by Engineer and subsequent removal of the same after completion of the job to the entire satisfaction of the Engineer-in-charge, including pumping & bailing out of the water complete.		
a)	250 mm dia pipe	job	1198
b)	300 mm dia pipe	job	1725
c)	400 mm dia pipe	job	2795
d)	450 mm dia pipe	job	3460

Item No.	Description of work	Unit	Rate
e)	600mm dia pipe	job	6150
f)	800mm dia pipe	job	10450
g)	900mm dia pipe	job	13225
h)	1000mm dia pipe	job	16325
i)	1200mm dia pipe	job	23510
j)	1400mm dia pipe	job	32000
k)	1500mm dia pipe	job	38740
5	Plugging the total storm water drain from the existing storm water line so as to reduce the drainage of storm line sewer line to minimum in wet and foul condition by placing gunny bags filled up with earth and stacked properly including supplying and laying the filled up gunny bags up to full length and required height as directed by Engineer and subsequent removal of the same after completion of the job to the entire satisfaction of the Engineer, including pumping & bailing out of the water complete.		
a)	150 mm dia pipe	job	431
b)	250 mm dia pipe	job	1198
c)	300 mm dia pipe	job	1725
d)	400 mm dia pipe	job	3067
e)	450 mm dia pipe	job	3460
f)	600 mm dia pipe	job	6150
g)	800 mm dia pipe	job	10500
h)	900 mm dia pipe	job	13838
i)	1000 mm dia pipe	job	17300
j)	1500 mm dia pipe	job	25000
6	Providing lead caulked joints including the cost of pig lead supply and fixing of rubber gaskets welding, and cutting of MS pipes and specials, including the cost of H/P of T&P at site (For watermain at interconnection point / Y-tee/ valve) including cost of dewatering.		
a)	upto 300 mm dia	each	12000

Item No.	Description of work	Unit	Rate
b)	400 - 600 mm dia	each	15000
c)	750mm dia	each	22500
7	Supply and installation of MS pipe (6 mm thick) with 750 Micron PV coating internally and 250 micron anti corrosive bituminous paint externally with a tolerance of 6" in gradient by trenchless technology method at an average depth of 5 mtrs below the road level including excavation & filling of pits, dewatering arrangements, supporting systems for soil, including the approval from the concerned department. The firm will also supply the test certificate w.r.t. M.S. pipe, design of PV coating etc. The work also involves underground mapping of services, barricading, installation of flickering lights etc, clearing site in all respects after submitting CCTV survey report from u/s to d/s, connection manholes along with the site of drawing showing work complete in all respect.		
a)	250 mm dia( 6mm thick)	mtr	12000
b)	300 mm dia ( 6mm thick)	mtr	15900
c)	450 mm dia ( 10mm thick)	mtr	22000
d)	600 mm dia ( 10mm thick)	mtr	44000
e)	750 mm dia ( 10mm thick)	mtr	68000
8	Providing and laying of 100 mm GI pipe, medium class, Jindal make, with all accessories like bends, sockets, etc all complete	Mtrs.	1100
9	P/L of MS pipe of 10 mm wall thickness on agreed line and grade (as per IS: 3589 and made from steel conforming to IS: 2062) the steel pipe surface internal and external shall be blasted to near white and then coated with solvent less P.U. coating of nominal 750 microns and nominal 1000 microns on exterior and interior surface respectively all approved/used by Railway/KMDA/PWD's project for sewer and water lines with design and construction of manholes at approximate 30 meter interval or required distance with trenchless construction technique below the water table preferably without the need of dewatering, Accuracy of level at required gradient/slope to be achieved by use of Laser/CCTV controlled by suitable equipment. In the last pit, the equipment to be positioned at surface in a single traffic lane. The work shall be done in such a manner that it will not disturb the smooth movement of traffic. The item includes excavation of trenches and recovery pit and backfilling after work completed at the site of work mobilization and demobilization of equipment consumable etc as needed to complete the work and cleaning of site complete including disposal of surplus earth within 10 km lead and making water and manhole connections. Traffic control arrangement and lighting display of sign board. Insurance of work man etc complete including removal of all hindrances, unforeseen items permission of other dept. (dept. shall only assist in getting permissions etc.) nothing extra shall be paid on this account to complete the job.		

Item No.	Description of work	Unit	Rate
a)	900 mm dia pipe by trenchless technology	per metre	54000
10	Providing and laying MS pipes/barrels made out of required thickness MS plate Including painting with epoxy paint of approved quality outside and inside tested to a head of 15kg/cm square suitable for welding joints conforming to IS 3589-1981, IS 784-1974 including testing of the specified head as directed by the Engineer.		
a)	Pipes made up of MS sheet (6mm to12mm thick.)	Kg	57
11	Providing and laying MS special such as tees, bends, collars, tails pieces etc made out of required thickness MS sheet including painting with epoxy paint of approved quality outside and inside tested to a head of 15kg/sqcm suitable for welding joints conforming to IS3589-1981, IS784-1974 including testing of the specified head as directed by the Engineer.		
12	Supply and construction of Manhole (on existing sewer or new sewer) up to a depth of 4000mm with CBW (1:3) Chamber of sizes mentioned below and 1400 mm length with circular shaft of brickwork (1:3), 275 mm thick RCC (M15) base slab placed over a layer of Brick flat soling including M20 Grade doubly reinforced RCC cover slabs 200 mm thick over chamber and 150 mm thick over shaft having opening for manhole, formation of chamber at the invert with PCC (1:2:4) finished with 1.5 mm thick net cement finish over 15 mm thick plaster in cement and mortar (1:3) on all internal faces, including supplying, fitting and fixing of safety chain (for pipe dia 800 mm and above) and 600 mm dia clear opening (HD20) 20 empty capacity RCC manhole cover with frame as per IS12592 packed around with PCC 1:2:4, including shuttering, reinforcement, dismantling road crust, excavation in all kind of soil with shoring and dewatering as required, back filling with consolidation, disposal of spoils-surplus earth as directed by the engineer		
a)	Manhole size 900 mm X1400mm with shaft size 750 mm dia, depth of invert upto 2.5m below ground level (for pipe size upto 600m dia)	each	67034
b)	Manhole size 1200 mm X1400mm with shaft size 750 mm dia, depth of invert upto 2.5m below ground level (for pipe size above 600m dia and upto 900 mm dia)	each	71315
c)	Manhole size 1500 mm X1400mm with shaft size 750 mm dia, depth of invert above 2.5 m and upto 3.0m below ground level (for pipe size above 900 dia upto 1200m dia)	each	84256
d)	Manhole size 1800 mm X1400mm with shaft size 750 mm dia, depth of invert beyond 2.5m and upto 3 m below ground level (for pipe size above 1200 dia and upto 1500 mm dia)	each	90605
e)	Manhole size 2400 mm X1400mm with shaft size 750 mm dia, depth of invert upto 3.5 m below ground level (for pipe size above 1500 dia and upto 2000mm dia)	each	106340
13	Providing H.S. Pipe, made out of 6 mm thick MS plate with inside cement mortar lining of 25 mm thick and 25 mm thick outside coating as per IS 1916 of following diameter		
a)	150 mm dia pipe	mtr	2500
b)	300 mm dia pipe	mtr	4300
c)	400 mm dia pipe	mtr	5750

Item No.	Description of work	Unit	Rate
d)	450 mm dia pipe	mtr	6450
e)	500 mm dia pipe	mtr	6625
f)	600 mm dia pipe	mtr	7500
g)	750 mm dia pipe	mtr	10200
h)	900 mm dia pipe	mtr	12900
14	Laying H.S. Pipe, made out of 6 mm thick MS plate with inside cement mortar lining of 25 mm thick and 25 mm thick outside coating as per IS 1916		
a)	150 mm dia pipe	mtr	100
b)	300 mm dia pipe	mtr	150
c)	400 mm dia pipe	mtr	200
d)	450 mm dia pipe	mtr	215
e)	500 mm dia pipe	mtr	230
f)	600 mm dia pipe	mtr	248
g)	750 mm dia pipe	mtr	310
h)	900 mm dia pipe	mtr	375
15	Providing and fixing IVC brand 400 mm dia D/F non- return / check valve of PN 1.0 rating having Body/Door of CI Gr. 20, TRUNNION shaft AISI 410, Face & Seat ring of GM i.e. metal to metal seat & not Rubber to metal, generally conforming to IS: 5312, Flange flat face drilled to ISI 538 Part IV & VI/BS 10 Table "D"	Each	117045
16	Providing and fixing CI D/F Sluice Valve with S&S ( IS 6603 12 Sr 12) stain and gun metal Parts conforming to IS 14846 of approved make/ of approved brand ( with cap ) in the existing pipe with bolts, nuts, rubber insertions etc. complete and as per the direction of Engineer		
a)	150 mm dia	Each	10410
b)	300 mm dia	Each	4160
c)	400 mm dia	Each	74060
d)	450 mm dia	Each	93700
e)	500 mm dia	Each	115720
f)	600 mm dia	Each	170029
g)	750 mm dia	Each	260000
h)	900 mm dia	Each	370000

Item No.	Description of work	Unit	Rate
17	<p>P/L of MS pipe of 12 mm wall thickness on agreed line and grade ( as per IS 3589 and made from steel conforming to IS 2062) the steel pipes surface internal and external shall be blasted to near white and then coated with solvent less PU coating of nominal 750 microns and nominal 1000 microns on exterior and interior surface respectively of approved make/used by Railway/KMDA/PWD in sewer and water line projects with design and construction of manholes at required distance. Pipe to be laid with trenchless construction technique. Accuracy of level at required gradient/slope to be achieved by use of laser/CCTV controlled by any suitable equipment. In the last pit the equipment to be positioned at surface in a single traffic lane for the work. The item includes excavation of trenches and recovery pits, excavated earth taken out and their backfilling after work completed at the site. Work includes mobilization and demobilization of equipment consumable etc as needed to complete the work and cleaning of site complete including disposal of surplus earth within 10 km lead and making water and manhole connections, traffic control arrangement, lighting of complete work site area, display of sign boards. insurance of work man etc complete including removal of all hindrances, unforeseen items, obtaining permission of other deptt (deptt shall only assist in getting permissions etc.). Nothing extra shall be paid on this account to complete the job. The firm will also supply the test certificate w.r.t MS pipe design and P.U. coating etc, during the execution of work, dewatering of pit and making good by back filling in layers of 20 cm each as per the relevant PWD specifications and disposal of surplus earth as per direction of Engineer-in charge. The firm has to make connections in the U/S and D/S manholes at the same existing invert level including necessary plugging in the existing line by dismantling and restoration of the connection manholes complete.</p>		
a)	1200 mm dia pipe by Trenchless technology	Mtr	90000
b)	1400 mm dia pipe by Trenchless technology	Mtr	103815
c)	1500 mm dia pipe by Trenchless technology	Mtr	120000

**ANNEXURE TO SCHEDULE-C  
Sub-head: C2 - Electrical Utilities**

**RATES FOR POWER CABLE SUPPLY AND LAYING IN TRENCH WITH SAND  
AND PROTECTIVE COVERING**

1	Supply at the site of work of HT, XLPE insulated, armoured, conductor cables as per IS-7098/Part-II/1985 with up to date amendment & specified in the specifications of the sizes given below, laying of cables in trenches in all types of areas (normal soil, footpath, road etc) by excavation with laying arrangement with stand cushion and brick/brick tiles or shaped RCC cover protection as required/approved by utility owing agency at the required depth including refilling of trenches, testing & commissioning of cables etc as required		
BOQ Item No	Description of Item	Unit	Rate (Rs)
1a	33KV XLPE 3x400 sqmm	Mtr	3896.41
1b	33KV XLPE 3x300 sqmm	Mtr	3297.59
1c	11KV XLPE3X400sqmm	Mtr	2676.37
1d	11KV XLPE3X300 sqmm	Mtr	2226.43
1e	11KV XLPE3X240 sqmm	Mtr	1941.16
1f	11KV XLPE3X150sqmm	Mtr	1382.27
1g	11KV XLPE3X185sqmm	Mtr	1591.85
1h	11KV XLPE3X120sqmm	Mtr	1226.74
1i	11KV XLPE3X70sqmm	Mtr	925.67
2	Supply at the site of work of LT, XLPE insulated, armoured, conductor cables as per IS-7098/Part-I/1988 with up to date amendment & specified in the specifications of the sizes given below, laying of cables in trenches in all types of areas (normal soil, footpath, road etc) by excavation with laying arrangement with stand cushion and brick/brick tiles or shaped RCC cover protection as required/approved by utility owing agency at the required depth including refilling of trenches, testing & commissioning of cables etc as required		
BOQ Item No	Description of Item	Unit	Rate (Rs)
2a	1.1KV XLPE 3.5x400 sqmm	Mtr	2012.73
2b	1.1KV XLPE 3.5x300 sqmm	Mtr	1612.19
2c	1.1KV XLPE 3.5x240sqmm	Mtr	1327.75
2d	1.1KV XLPE 3.5x185 sqmm	Mtr	1050.80
2e	1.1KV XLPE 3.5x150sqmm	Mtr	859.42
2f	1.1KV XLPE 3.5x120 sqmm	Mtr	730.52
2g	1.1KV XLPE 3.5x95 sqmm	Mtr	602.60
3	Supply at the site of work of LT, PVC insulated, armoured, conductor cables as per IS-1554/Part-I/1988 with up to date amendment & specified in the specifications of the sizes given below, laying of cables in trenches in all types of areas (normal soil ,footpath, road etc) by excavation with laying arrangement with stand cushion and brick/brick tiles or shaped RCC cover protection as required/approved by utility owing agency at the required depth including refilling of trenches, testing & commissioning of cables etc as required		
Item No	Description of Item	Unit	Rate (Rs)
3a	1.1KV PVC 4x95 sqmm	Mtr	668.89
3b	1.1KV PVC 4x70 sqmm	Mtr	515.28
3c	1.1KV PVC 4x50 sqmm	Mtr	404.49
3d	1.1KV PVC 4x25sqmm	Mtr	267.10
3e	1.1KV PVC 4x16 sqmm	Mtr	213.37
3f	1.1KV PVC 4x10 sqmm	Mtr	180.61
3g	1.1KV PVC 2x25 sqmm	Mtr	181.44
3h	1.1KV PVC 2x10sqmm	Mtr	157.73

3i	1.1KV PVC 10x4sqmm(Cu)	Mtr	532.58
3j	1.1KV PVC 3.5x70sqmm	Mtr	470.28
3k	1.1KV PVC3.5x50sqmm	Mtr	372.23
3l	1.1KV PVC 3.5x35sqmm	Mtr	292.05
3m	1.1KV PVC 3.5x25sqmm	Mtr	255.96

**RATE FOR ADDITIONAL POWER CABLES SUPPLY AND LAYING IN SAME TRENCH WITH SAND AND PROTECTIVE COVERING**

4	Supply at the site of work of HT, XLPE insulated, armoured, conductor cables as per IS-7098/Part-II/1985 with up to date amendment & specified in the specifications of the sizes given below, laying of additional cables in same trenches of required width in all types of areas (normal soil, footpath, road etc) by excavation with laying arrangement with stand cushion and brick/brick tiles or shaped RCC cover protection as required/approved by utility owing agency at the required depth including refilling of trenches, testing & commissioning of cables etc as required		
Item No	Description of Item	Unit	Rate (Rs)
	HT ARMoured CABLES		
4a	33KV XLPE 3x400 sq mm	Mtr	3867.98
4b	33KV XLPE 3x300 sq mm	Mtr	3269.17
4c	11KV XLPE3X400sq mm	Mtr	2653.05
4d	11KV XLPE3X300 sq mm	Mtr	2203.11
4e	11KV XLPE3X240 sq mm	Mtr	1917.84
4f	11KV XLPE3X150sq mm	Mtr	1358.95
4g	11KV XLPE3X185sq mm	Mtr	1568.53
4h	11KV XLPE3X120sq mm	Mtr	1203.42
4i	11KV XLPE3X70sqmm	Mtr	902.35
5	Supply at the site of work of LT, XLPE insulated, armoured, conductor cables as per IS-7098/Part-I/1988 with up to date amendment & specified in the specifications of the sizes given below, laying of additional cables in same trenches of required width in all types of areas (normal soil, footpath, road etc) by excavation with laying arrangement with stand cushion and brick/brick tiles or shaped RCC cover protection as required/approved by utility owing agency at the required depth including refilling of trenches, testing & commissioning of cables etc as required		
BOQ Item No	Description of Item	Unit	Rate (Rs)
5a	1.1KV XLPE 3.5x400 sqmm	Mtr	1991.78
5b	1.1KV XLPE 3.5x300 sqmm	Mtr	1591.24
5c	1.1KV XLPE 3.5x240sqmm	Mtr	1306.80
5d	1.1KV XLPE 3.5x185 sqmm	Mtr	1029.85
5e	1.1KV XLPE 3.5x150sqmm	Mtr	838.48
5f	1.1KV XLPE 3.5x120 sqmm	Mtr	712.56
5g	1.1KV XLPE 3.5x95 sqmm	Mtr	584.65
	Supply at the site of work of LT, PVC insulated, armoured, conductor cables as per IS-1554/Part-I/1988 with up to date amendment & specified in the specifications of the sizes given below, laying of additional cables in same trenches of required width in all types of areas (normal soil, footpath, road etc) by excavation with laying arrangement with stand cushion and brick/brick tiles or shaped RCC cover protection as required/approved by utility owing agency at the required depth including refilling of trenches, testing & commissioning of cables etc as required		
BOQ Item No	Description of Item	Unit	Rate (Rs)
6a	1.1KV PVC 4x95 sqmm	Mtr	650.94
6b	1.1KV PVC 4x70 sqmm	Mtr	497.32
6c	1.1KV PVC 4x50 sqmm	Mtr	386.54
6d	1.1KV PVC 4x25sqmm	Mtr	249.15

6e	1.1KV PVC 4x16 sqmm	Mtr	195.42
6f	1.1KV PVC 4x10 sqmm	Mtr	162.65
6g	1.1KV PVC 2x25 sqmm	Mtr	163.49
6h	1.1KV PVC 2x10sqmm	Mtr	139.78
6i	1.1KV PVC 10x4sqmm(Cu)	Mtr	514.62
6j	1.1KV PVC 3.5x70sqmm	Mtr	449.34
6k	1.1KV PVC3.5x50sqmm	Mtr	351.28
6l	1.1KV PVC 3.5x35sqmm	Mtr	274.10
6m	1.1KV PVC 3.5x25sqmm	Mtr	238.01

**RATE FOR POWER CABLE SUPPLY AND LAYING IN RCC HUME PIPE IN GROUND**

7	Supply at the site of work of HT,XLPE insulated, armoured, conductor cables as per IS-7098/Part-II /1985 with up to date amendment & specified in the specifications of the sizes given below ,laying of cables in RCC Hume pipes 250/150mm dia with collars(RCC Hume pipes confirming to NP2 with collars ) including laying of pipes by open trenching method in all types of areas (normal soil ,footpath, road etc) as directed by engineer in charge ,including refilling of Trenches, Testing and Commissioning of cables etc as required. The Rate Require shall include supply of pipes of requisite size and specification:		
Item No	Description of Item	Unit	Rate(Rs)
	HT ARMoured CABLE		
7a	33KV XLPE 3x400 sqmm,250mm dia pipe	Mtr	3824.93
7b	33KV XLPE 3x300 sqmm,250 mm dia pipe	Mtr	3280.55
7c	11KV XLPE 3X400sqmm,150mm dia pipe	Mtr	2676.60
7d	11KV XLPE 3X300 sqmm,150mm dia pipe	Mtr	2267.56
7e	11KV XLPE 3X240 sqmm,150mm dia pipe	Mtr	2008.22
7f	11KV XLPE 3X150sqmm,150mm dia pipe	Mtr	1500.14
7g	11KV XLPE 3X185sqmm,150mm dia pipe	Mtr	1690.67
7h	11KV XLPE 3X120sqmm,150mm dia pipe	Mtr	1358.75
7i	11KV XLPE3X70sqmm,150mm dia pipe	Mtr	1085.05
8	Supply at the site of work of LT,XLPE insulated, armoured, conductor cables as per IS-7098/Part-I /1988with up to date amendment & specified in the specifications of the sizes given below ,laying of cables in RCC hume pipes 250/150mm dia with collars(RCC hume pipes confirming to NP2 with collars ) including laying of pipes by open trenching method in all types of areas (normal soil ,footpath, road etc) as directed by engineer in charge ,including refilling of Trenches, Testing and Commissioning of cables etc as required. The Rate Require shall include supply of pipes of requisite size and specification:		
Item No	Description of Item	Unit	Rate (Rs)
8a	1.1KV XLPE 3.5x400 sqmm	Mtr	2075.44
8b	1.1KV XLPE 3.5x300 sqmm	Mtr	1711.31
8c	1.1KV XLPE 3.5x240sqmm	Mtr	1452.73
8d	1.1KV XLPE 3.5x185 sqmm	Mtr	1200.96
8e	1.1KV XLPE 3.5x150sqmm	Mtr	1026.99
8f	1.1KV XLPE 3.5x120 sqmm	Mtr	913.88
8g	1.1KV XLPE 3.5x95 sqmm	Mtr	774.76
9	Supply at the site of work of LT,PVC insulated, armoured, conductor cables as per IS-1554/Part-I /1988 with up to date amendment & specified in the specifications of the sizes given below ,laying of cables in RCC Hume pipes 250/150mm dia with collars(RCC hume pipes confirming to NP2 with collars ) including laying of pipes by open trenching method in all types of areas (normal soil ,footpath, road etc) as directed by engineer in charge ,including refilling of Trenches, Testing and Commissioning of cables etc as required. The Rate Require shall include supply of pipes of requisite size and specification:		

BOQ Item No	Description of Item	Unit	Rate(Rs.)
9a	1.1KV PVC 4x95 sqmm,100mm dia pipe	Mtr	835.02
9b	1.1KV PVC 4x70 sqmm100mm dia pipe	Mtr	695.37
9c	1.1KV PVC 4x50 sqmm100mm dia pipe	Mtr	594.66
9d	1.1KV PVC 4x25sqmm100mm dia pipe	Mtr	468.40
9e	1.1KV PVC 4x16 sqmm100mm dia pipe	Mtr	419.56
9f	1.1KV PVC 4x10 sqmm100mm dia pipe	Mtr	389.77
9g	1.1KV PVC 2x25 sqmm100mm dia pipe	Mtr	390.52
9h	1.1KV PVC 2x10sqmm100mm dia pipe	Mtr	368.98
9i	1.1KV PVC 10x4sqmm(Cu)100mm dia pipe	Mtr	709.74
9j	1.1KV PVC 3.5x70sqmm100mm dia pipe	Mtr	654.47
9k	1.1KV PVC3.5x50sqmm100mm dia pipe	Mtr	565.33
9l	1.1KV PVC 3.5x35sqmm100mm dia pipe	Mtr	495.16
9m	1.1KV PVC 3.5x25sqmm100mm dia pipe	Mtr	458.27

**RATE ANALYSIS FOR POWER CABLE SUPPLY AND LAYING IN EXISTING PIPE EXCLUDING SUPPLY AND LAYING OF PIPE**

10	Supply at the site of work of HT,XLPE insulated, armoured, conductor cables as per IS-7098/Part-II /1985 with up to date amendment & specified in the specifications of the sizes given below ,laying of cables in existing pipes in all types of areas(normal soil, footpath, road etc). As directed by engineer in charge ,including testing and commissioning of cables etc as required		
BOQ Item No	Description of Item	Unit	Rate (Rs)
	<b><u>HT ARMoured CABLES</u></b>		
10a	33KV XLPE 3x400 sqmm	Mtr	3494.59
10b	33KV XLPE 3x300 sqmm	Mtr	2950.21
10c	11KV XLPE3X400sqmm	Mtr	2388.75
10d	11KV XLPE3X300 sqmm	Mtr	1979.71
10e	11KV XLPE3X240 sqmm	Mtr	1720.37
10f	11KV XLPE3X150sqmm	Mtr	1212.29
10g	11KV XLPE3X185sqmm	Mtr	1402.82
10h	11KV XLPE3X120sqmm	Mtr	1070.90
10i	11KV XLPE3X70sqmm	Mtr	797.20
11	Supply at the site of work of LT,XLPE insulated, armoured, conductor cables as per IS-7098/Part-I /1988 with up to date amendment & specified in the specifications of the sizes given below ,laying of cables in existing pipes in all types of areas normal soil, footpath, road etc).. As directed by engineer in charge, including testing and commissioning of cables etc as required		
BOQ Item No	Description of Item	Unit	Rate (Rs)
11a	1.1KV XLPE 3.5x400 sqmm	Mtr	1787.6
11b	1.1KV XLPE 3.5x300 sqmm	Mtr	1423.5
11c	1.1KV XLPE 3.5x240sqmm	Mtr	1164.9
11d	1.1KV XLPE 3.5x185 sqmm	Mtr	913.1
11e	1.1KV XLPE 3.5x150sqmm	Mtr	739.1
11f	1.1KV XLPE 3.5x120 sqmm	Mtr	626.0
11g	1.1KV XLPE 3.5x95 sqmm	Mtr	509.7
12	Supply at the site of work of LT,PVC insulated, armoured, conductor cables as per IS1554/Part-I /1988 with up to date amendment & specified in the specifications of the sizes given below ,laying of cables in existing pipes in all types of areas normal( soil, footpath, road etc). As directed by engineer in charge ,including testing and commissioning of cables etc as required		

BOQ Item No	Description of Item	Unit	Rate (Rs)
12a	1.1KV PVC 4x95 sqmm	Mtr	570.00
12b	1.1KV PVC 4x70 sqmm	Mtr	430.35
12c	1.1KV PVC 4x50 sqmm	Mtr	329.64
12d	1.1KV PVC 4x25sqmm	Mtr	203.22
12e	1.1KV PVC 4x16 sqmm	Mtr	154.38
12f	1.1KV PVC 4x10 sqmm	Mtr	124.59
12g	1.1KV PVC 2x25 sqmm	Mtr	125.34
12h	1.1KV PVC 2x10sqmm	Mtr	103.80
12i	1.1KV PVC 10x4sqmm(Cu)	Mtr	444.56
12j	1.1KV PVC 3.5x70sqmm	Mtr	389.45
12k	1.1KV PVC3.5x50sqmm	Mtr	300.31
12l	1.1KV PVC 3.5x35sqmm	Mtr	230.14
12m	1.1KV PVC 3.5x25sqmm	Mtr	193.09

**DISMANTLING (Taking Out From Ground) OF CABLES**

13	Dismantling (taking out from ground) the following rating & sizes of XLPE/PILCA/PVC cables, without damaging the cables, by excavation in all types of area (normal soil, foot-path, road etc.) with refilling excavated trenches. This also includes handing over of dismantled cable (if not relayed) to concerned utility owning agency		
BOQ Item No	Description Of Item	Unit	Rate (Rs)
13a	33KV Cables of all Type and Sizes above 120 Sqmm	Mtr	39.44
13b	11KV Cables of all Type and Sizes above 120 Sqmm	Mtr	34.00
13c	LT Cables of all Type and Sizes 120 Sqmm and above	Mtr	25.84
13d	LT Cables of all Type and Sizes less than 120 Sqmm	Mtr	21.76
13e	11KV Cables of all Type and Sizes less than 120 Sqmm	Mtr	30.15

**SUPPLY, MAKING, TESTING & COMMISSIONING OF COMPLETE STRAIGHT THROUGH JOINT BOX**

14	Supply, Making, Testing and Commissioning of Complete Straight Through Joint as Specified in the Specification including Provision of Lugs/Ferrules for Jointing the HT/LT, XLPE/PILCA/PVC insulated cables, excavation of Pits, sand Cushioning, Protective Covering Refilling of Jointing Pit etc as Required by Utility Owing Agency of Following Sizes and Type:		
BOQ Item No	Description Of Item	Unit	Rate (Rs)
14a	33KV H.S. Type 3 x 400 sq. mm	Set	43970.20
14b	33KV H.S. Type 3 x 300 sq. mm	Set	39296.71
14c	11KV H.S. Type 3 x 300 sq. mm	Set	14730.72
14d	11KV H.S. Type 3 x 240 sq. mm	Set	14730.72
14e	11KV H.S. Type 3 x 150 sq. mm	Set	13489.54
14f	11 KV H.S. Type 3X185 Sq mm	Set	13489.54
14g	11 KV H.S. Type 3X120 Sq. mm	Set	13489.54
14h	11 KV H.S. Type 3X70 Sq. mm	Set	10658.17
14i	33 KV H.S. Transition Type 3X400 Sq. mm	Set	49510.44
14j	33 KV H.S. Transition Type 3X300 Sq. mm	Set	49510.44
14k	11 KV H.S. Transition Type 3X300 Sq. mm	Set	18664.58

14l	11 KV H.S. Transition Type 3X240 Sq. mm	Set	18664.58
14m	11 KV H.S. Transition Type 3X150 Sq. mm	Set	17675.34
14n	11 KV H.S. Transition Type 3X185 Sq. mm	Set	18664.58
14o	11 KV H.S. Transition Type 3X120 Sq. mm	Set	17675.34
14p	11 KV H.S. Transition Type 3X70 Sq. mm	Set	16604.04
14q	33 KV Tapex Type 3X400 Sq. mm	Set	33561.17
14r	33 KV Tapex Type 3X300 Sq. mm	Set	28742.07
14s	11 KV Tapex Type 3X300 Sq. mm	Set	8394.23
14t	11 KV Tapex Type 3X240 Sq. mm	Set	8394.23
14u	11 KV Tapex Type 3X150 Sq. mm	Set	7007.44
14v	11 KV Tapex Type 3X185 Sq. mm	Set	7007.44
14w	11 KV Tapex Type 3X120 Sq. mm	Set	7007.44
14x	11 KV Tapex Type 3X70 Sq. mm	Set	6073.67
14y	33 KV Tapex Transition Type 3X400 sq.mm	Set	38063.63
14z	33 KV Tapex Transition Type 3X300 sq.mm	Set	37106.74
14aa	11 KV Tapex Transition Type 3X300 sq.mm	Set	9076.07
14ab	11 KV Tapex Transition Type 3X240 sq.mm	Set	9076.07
14ac	11 KV Tapex Transition Type 3X150 sq.mm	Set	7671.94
14ad	11 KV Tapex Transition Type 3X185 Sq. mm	Set	7671.94
14ae	11 KV Tapex Transition Type 3X120 Sq. mm	Set	7671.94
14af	11 KV Tapex Transition Type 3X70 Sq. mm	Set	6130.29
14ag	LT 1.1KV cast resin comp. Type 3.5x400	Set	2244.96
14ah	LT 1.1KV cast resin comp. Type 3.5x300	Set	1871.69
14ai	LT 1.1KV cast resin comp. Type 3.5x240	Set	1595.48
14aj	LT 1.1KV cast resin comp. Type 3.5x185	Set	1304.26
14ak	LT 1.1KV cast resin comp. Type 3.5x150	Set	1271.90
14al	LT 1.1KV cast resin comp. Type 3.5x120	Set	1222.07
14am	LT 1.1KV cast resin comp. Type 3.5x95	Set	840.70
14an	LT 1.1KV cast resin comp. Type 4x95	Set	840.70
14ao	LT 1.1KV cast resin comp. Type 4x70	Set	840.70
14ap	LT 1.1KV cast resin comp. Type4x50	Set	691.38
14aq	LT 1.1KV cast resin comp. Type 4x25	Set	586.83
14ar	LT 1.1KV cast resin comp. Type 4x16	Set	522.12
14as	LT 1.1KV cast resin comp. Type 4x10	Set	522.12
14at	LT 1.1KV cast resin comp. Type2x25	Set	522.12
14au	LT 1.1KV cast resin comp. Type 2x10	Set	449.31
14av	LT 1.1KV cast resin comp. Type 10x4	Set	586.83
14aw	LT 1.1KV cast resin comp.type 3.5CX70	Set	840.70
14ax	LT 1.1KV cast resin comp.type 3.5CX50	Set	691.38
14ay	LT 1.1KV cast resin comp.type 3.5CX35	Set	626.66
14az	LT 1.1KV cast resin comp.type 3.5CX25	Set	586.83

15	Supply, Making, Testing & Commissioning of Complete Heat Shrinkable Type Indoor/Outdoor type and end Termination as Specified in the Specifications including provision of Lugs/Ferrules for Termination of XLPE insulated cable including making Hole in the Switch Board ,Clamping, Supporting complete as required by Utility owing agency of Following Sizes:		
BOQ Item No	Description Of Item	Unit	Rate (Rs)
	<b><u>INDOOR TERMINATIONS</u></b>		
15a	11 KV H.S. Type 3X300 Sq. mm	Set	5303.37
15b	11 KV H.S. Type 3X240 Sq. mm	Set	5303.37
15c	11 KV H.S. Type 3X150 Sq. mm	Set	4986.98
15d	11 KV H.S. Type 3X185 Sq. mm	Set	4986.98

15e	11 KV H.S. Type 3X120 Sq. mm	Set	4986.98
15f	11 KV H.S. Type 3X70 Sq. mm	Set	4208.15
<b><u>OUTDOOR TERMINATIONS</u></b>			
15g	11 KV H.S. Type 3X300 Sq. mm	Set	7948.12
15h	11 KV H.S. Type 3X240 Sq. mm	Set	7948.12
15i	11 KV H.S. Type 3X150 Sq. mm	Set	7096.29
15j	11 KV H.S. Type 3X185 Sq. mm	Set	7096.29
15k	11 KV H.S. Type 3X120 Sq. mm	Set	7096.29
15l	11 KV H.S. Type 3X70 Sq. mm	Set	6625.75

**STREET LIGHTING SYSTEM (DVB/ NDMC)**

BOQ Item No	Description of Item	Unit	Rate(Rs)
16	Supply and Erection of 250 W Street Lighting HPSV Lamp fitting Complete with HPSV Lamps, Fittings, Choke, Igniter etc as per the specifications of the owing agency, required or erected pole including wiring from the box, earthing. The wiring shall be done with 1x4 sq mm PVC insulated, PVC sheathed conductor Cable including Testing and commissioning as per specifications and requirement, 16 SWG wire shall be run throughout the wiring for pole fitting inclusively.	Each	5400/-
17	Supply and Transporting to the site of the work of Steel Tubular swaged Pole of 10.5 meter height as specified with		
17a	Double Overhang Bracket-2mtr long	Each	6200
17b	Single Overhang Bracket -2 mtr Long	Each	6000

18	Erection of steel tubular swaged Poles of Height above 9.0 mtr but less than 12.0 mtr with double/Single overhang bracket 2 mtr long including excavation and providing and laying cement concrete 1:3:6(1 cement: 3course sand: 6 stone aggregate of 20mm nominal size)in foundation and collar size 450mm diameter and 400 mm height including providing and fixing 50mm diameter class B GI pipe 1.5 meter long for cable entry. l/o Plastering the foundation collar with 1:3 cement and course sand and painting of pole and bracket with colour synthetic enamel paint complete as required	Each	1248
19	Dismantling of Complete street Lighting Pole (Of height above 9m but less than 12m single/double overhang type)with fittings in such a manner that pole is not damaged and can be relocated	Each	258
20	Provision of Earthing as per specifications of Utility owing agency (Material as well as Labour)	Each	2407
21	Supply and Erection of Pole Junction Boxes as per NDMC/DVB specifications)	No	351

**LAYING OF PIPES BY TRENCHLESS BORING**

22	Supply of HDPE pipe confirming to PN4 as specified the sizes given below, boring of road areas by using trenchless method and laying of HDPE pipe properly continuously joined		
BOQ Item No	Description of Item	Unit	Rate (Rs)
22a	63mm	Mtr	450
22b	75mm	Mtr	520
22c	110mm	Mtr	600
22d	160mm	Mtr	1400
22e	200 mm	Mtr	1500
22f	250mm	Mtr	1800

**LAYING OF PIPES BY OPEN TRENCHING METHOD**

**66KV CABLE WORKS**

<b>23</b>	Supply of HDPE pipe confirming to PN4 as specified the sizes given below , laying of HDPE pipe properly continuously joined, by Open Trench method of laying		
<b>BOQ Item No</b>	Description of Item	Unit	Rate (Rs)
<b>23a</b>	63mm	Mtr	300
<b>23b</b>	75mm	Mtr	400
<b>23c</b>	110mm	Mtr	532
<b>23d</b>	160mm	Mtr	600
<b>23e</b>	200mm	Mtr	700
<b>23f</b>	250mm	Mtr	810

**LAYING OF PIPES BY OPEN TRENCHING METHOD**

**132KV CABLE WORKS**

SNO	Description of Material	Unit	Rate (Rs)
24	Supply of 132 KV Cable (E) grade single core ,size630 sq mm confirming to 60502-2&Laying of cable in trenches in all types of areas(normal soil, Footpath, road etc) by excavation with laying arrangement with sand cushion and brick/brick tiles or shaped RCC cover protection as required /approved by utility owing agency at required depth including refilling of trenches testing &commissioning of cable etc as required	Mtr	2278/-
25	132 KV Outdoor type and termination kit suitable for cable (pre-moulded type)	Each set	76125
26	132KV XLPE Cable straight through joint kit Complete	Each Set	72460
27	Warning Tape and Type Test Charge for Cable	Mtr	25

BOQ Item No	Description of Material	Unit	Rate(Rs)
28 a	<p align="center"><b><u>ROAD LIGHTING FOR VIP AREA</u></b></p> <p>Hot Dipped Galvanized smart Poles (Bajaj/Chinar make) standard specification Type BOP-1040, Height 10mtr, Top Dia 100mm, Bottom Dia 200mm, Plate thickness 4mm, Base Plate 310x310x20mm foundation PCD 310 mm Bolt size 4x25mm Dia</p>	Each	17738/-
28 b	<p><b>ZEBRA LIGHTING POLE WITH ZEBRA MC3 250W</b></p> <p>Zebra MC3 Lantern with IP-66 made out off white painted die cast alloy body with the cover made up of polypropylene treated to withstand UV rays; an optical compartment comprising of an acrylic protector equipped with especially made dispersive reflector to provide maximum lighting in a Plane Perpendicular to roadway center line. Reflector to be made out of special grade pre-anodized sheet.</p> <p>Complete Optical Unit to provide maximum contrast against surrounding complete with 250 W Metal Halide Tubular Lamp. Pole 6m with 1.5 mtr overhang; with 4mm Thick MS Square section "T" 100 mm, with 300mmx300mmx15mm thick MS Base Plate. The Poles will be in Black and White Strips as well as in Luminaries along with signage of the size 2'x2' Square</p> <p>Cat RefNo.MC3 Zebra/IB/250/1451 LH or RH</p>	Each	28750/-
28 c	Ex Stock High Pressure Die Cast Light Fittings		
	SGP 338/250W (Velocity)Phillips make IP-66	No	7312.5
28d	Single Bracket Made up of GI and Painted	No	600
28 e	Twin Bracket Made up of GI and Painted	No	900
28 f	Triple Bracket Made up of GI and Painted	No	1462.5
28 g	250W HPSV lamp	No	540